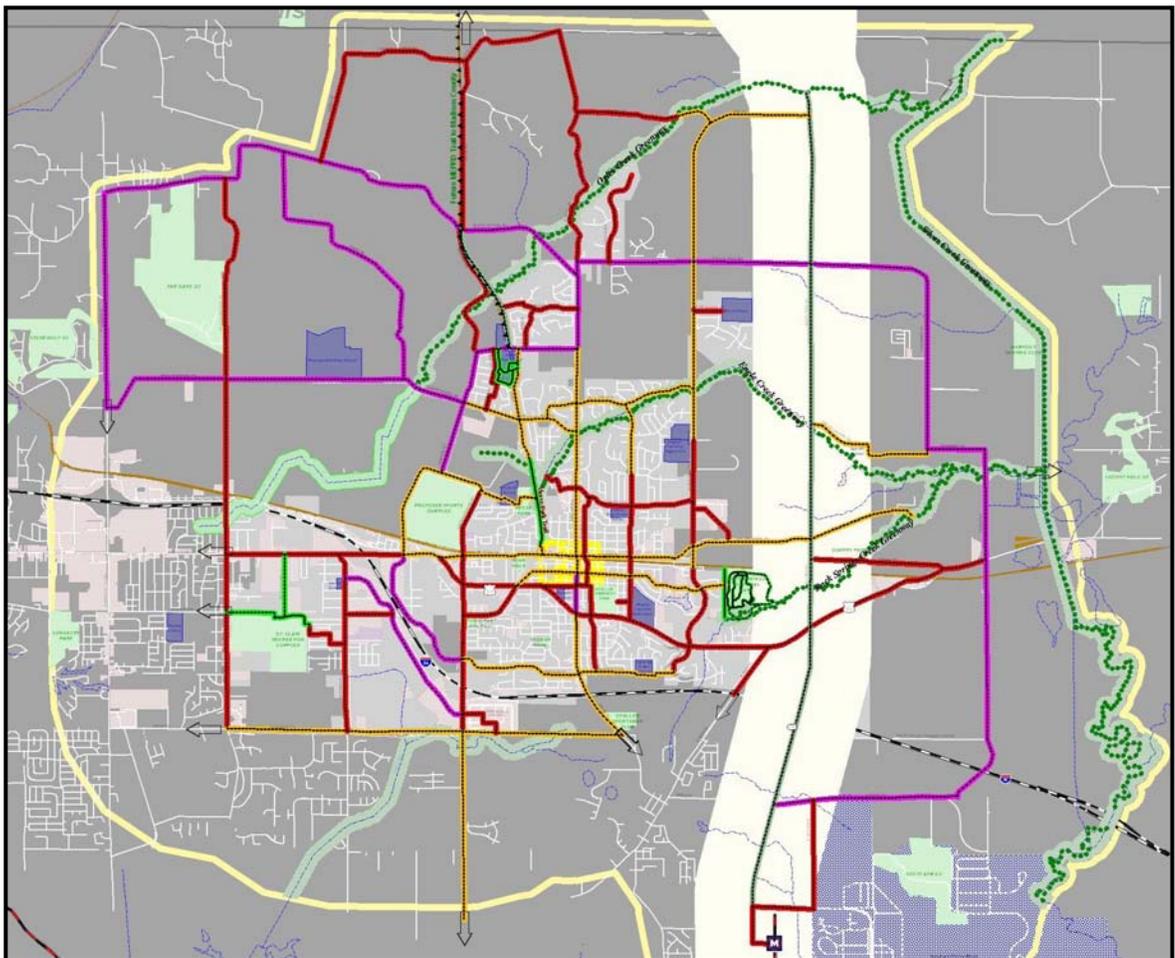




# City of O'Fallon, Illinois Bicycle Facilities Plan



January 10, 2005

Prepared by

Trailnet, Inc., and James Pona & Associates  
with Southwestern Illinois RC&D

# Contents

## O'Fallon, Illinois Bicycle Facilities Plan

<b>Introduction</b>	.....	I
<b>Executive Summary</b>	.....	ii
<b>I. Existing Conditions and Analysis</b>	.....	1
A. Summary of Existing Socio-Economic Factors in O'Fallon	.....	1
1. Population Growth and Demographic Characteristics	.....	1
2. Commercial Growth	.....	2
B. Physical Features in O'Fallon	.....	3
1. Streets	.....	3
2. Trails	.....	6
3. Sidewalks	.....	8
4. Public Facilities and Institutions	.....	9
5. Rail Lines	.....	10
6. Natural Features	.....	11
C. An Overview of Bicycle Facilities from a Broader Perspective	.....	13
1. Types of Bicycle Facilities	.....	13
2. Metro East Bicycle Facilities	.....	14
3. Facilities on the Missouri Side of the St. Louis Region	.....	15
4. Selected Facilities in Other Parts of the Country	.....	15
D. Existing Bicycle Usage and Projected Bicycle Facility Needs	.....	16
1. An Estimate of Existing Bicycle Usage	.....	16
2. Projected Bicycle Facility Needs	.....	21
<b>II. Bicycle Facilities Plan</b>	.....	23
A. Goals and Objectives	.....	23
1. Develop Bikeways as an Element in the Transportation System	.....	23
2. Establish Programs to Effectively Use the Bikeway System	.....	24
B. Bicycle Facility Components	.....	25
1. Introduction	.....	25
2. Trails	.....	25
3. On-Street Bikeways	.....	26
C. Implementation Strategy	.....	35
1. Pre-Engineering Opinion of Cost	.....	35
2. Plan Adoption and Regulatory Actions	.....	35
3. Potential Sources and Uses of Funding: A Multi-Year Strategy	.....	37
4. Encouragement, Education, and Enforcement	.....	39
5. Monitoring and Evaluation	.....	42
<b>Appendices</b>		
A. Attendance and Comments at the August 24, 2004 Public Hearing		
B. PBIC On-Street Facilities Document		
C. IDOT BDE Manual, Chapter 17 – Design Excerpts		
D. Bicycle Facility Selection Document – Design Excerpts		

# Introduction

The City of O'Fallon, Illinois has grown substantially over the past ten years. It is a prospering community that offers many attractive features to its residents, including appealing neighborhoods and subdivisions, shopping facilities, employment centers, and an increasing variety of recreational activities. Because the city's population is diversifying, this study was initiated in April, 2004, by the Department of Parks and Recreation and the Department of Public Works, to examine existing conditions relative to bicycle activity and to prepare a bicycle facilities plan that addresses both recreational and transportation needs in the city.

The City retained Trailnet, Inc., James Pona & Associates, and Southwestern Illinois RC&D to undertake the study. The effort was guided by the following individuals and departments: Mary Jeanne Hutchison, Director of Parks & Recreation; and Dennis Sullivan, Director of Engineering & Public Works. It was also assisted by Ted Shekell, AICP, Director of Planning; and Calvin Beckmann, Park Operations Specialist. The consultant team met on several occasions with members of this guidance team. It conducted extensive field reconnaissance and analysis of conditions on city streets and in existing parks, and examined the potential for new facilities along riparian and rail corridors. A public meeting was also held to solicit input from the community regarding the need for multipurpose trails and on-street bicycle facilities.

The results of the effort are presented in this Bicycle Facilities Plan, which identifies and prioritizes a series of trail and on-street and trail improvements to facilitate bicycle usage and to meet present and future needs. It is intended to result in new multipurpose trail and on-street bicycle facilities that will enhance the quality of life in the city and address the expressed needs of the community. The consultants would like to thank the guidance team and members of the community who provided critical input to the plan.

# Executive Summary

Existing Conditions and Analysis. O'Fallon is characterized in the 2001 Comprehensive Plan as a fast-growing suburban activity center. Almost 25% of its population is made up of children and young adults. In other cities, many individuals in these age cohorts typically use bicycles for recreation and transportation purposes, and field reconnaissance suggests that bicycle usage here is significant as well.

With the exception of a short length of Lincoln Avenue, there are presently no designated bicycle facilities on the road system. This shortage is not as significant within the eighty-five square block central portion of the city, which was built on a street grid concept and provides ample opportunity for efficient bicycle movement. Bicycle movement, however, becomes more challenging on newer streets that are laid out in the typical subdivision pattern that has characterized recent development in the city. This pattern represents about 80-85% of the city's present land area and would particularly benefit from selected improvements to facilitate bicycle movement.

Greater traffic demands will be placed on O'Fallon's street system in the future as the city continues to grow. This is primarily due to the fact that transportation systems tend to be dominated by one transportation mode instead of several that could include walking, bicycles, transit and local shuttle systems. Multi-modal systems enable the movement of larger numbers of people on paved surfaces that are not significantly different from their single-mode counterparts. This is reflected in the actual experience of other cities engaged in managing the dynamic of development, population growth, and road building activity.

Presently, there are several existing trails in O'Fallon: The Hesse Park Trail, an asphalt trail at Rock Springs Park, and another asphalt facility in St. Ellen Mine Park. These trails are essentially shorter recreational facilities that have limited value for alternative transportation.

An extensive sidewalk system is present in O'Fallon, beginning with an essentially complete system in the city's historic core. Subdivisions often have partial sidewalks, usually on one side of each street. Typical widths in the older sections of the city are 5 feet, while subdivisions often have 4 foot widths. Many areas of the city have sidewalk gaps. Sidewalks are being increasingly used for a variety of exercise-motivated activity including leisurely walking, power-walking, and jogging, and to socialize with neighbors. Younger children, who have always used sidewalks for bicycle-riding, continue to do so especially as streets have become busier.

O'Fallon has many public facilities and institutions which are an important part of the city's community fabric. Examples include parks, government centers, post offices, schools, libraries, and other facilities. The bicycle is presently used by a significant number of children as a transportation device to most of the elementary schools. It is also used on the street system by children and adults for other utilitarian trip purposes. Although the automobile obviously is, and will continue to be, the most predominant transportation mode for accessing these destinations, it is possible for the bicycle to provide a significant means of alternative access to them for some vehicle trips.

Several natural features help to define the physical makeup of O'Fallon. The topography of the city is generally flat to rolling. The city has gentle to moderate slopes of up to 10%, and this lends itself well to cycling and walking, both as a recreation and an alternative transportation activity. Streams are the second defining natural feature in the city. O'Fallon is tri-sected by three stream

corridors running generally from the southwest to the northeast. These include Ogles Creek, Engle Creek, and Rock Spring Branch. On the far eastern edge of the urban area is a fourth creek corridor, Silver Creek. The comprehensive plan calls attention to the potential for increased difficulty and expense related to intense development close to these corridors, and that these factors impose significant limitations on development.

As development in O'Fallon continues and open lands are converted to residential and commercial uses, it is critical for the edges of these streams and their corridors to be preserved as natural greenways to protect their multiple roles in natural storm drainage, air pollution control (the extensive tree canopy provides important air filtration), and as ecological corridors. While the protective imperatives of these corridors preclude residential and commercial development, they are quite compatible with a variety of passive and semi-active open space uses, and are ideal sites for a linear trail system with semi-active park nodes. The park nodes arranged along the greenways would provide new close-to-home park opportunities for future residential developments, and could pay significant dividends in terms of the per capita cost of park development.

The wider Metro East area has a growing number of major bicycle facilities. Within St. Clair County, the principal facility is the Metro Bike Link. Another facility is the Metro East Levee Trail. Madison County has eight major bicycle paths. There are no major bicycle paths in Monroe County. The Missouri side of the region also has a significant number of major bicycle facilities.

Hard data on existing bicycle usage in O'Fallon is limited, due to the absence of a local survey that would measure such usage. However, indirect sources for the assessment of existing demand do exist, which enable the development of a reasonable estimate of bicycle activity and other related activities likely to be undertaken in and around the city. For example, the Metro East Park and Recreation District (MEPRD) measured *rates of regular participation* by households in St. Clair and Madison Counties in a wide range of activities, including those that are very likely to be undertaken on a trail or a greenway. The results indicated that 65% of households walk or jog regularly; 47% regularly visit nature areas; 27% regularly engage in bicycling and/or BMX activities; 20% hike regularly; and 16% regularly run. From this and other data, it is estimated that a substantial number of O'Fallon households engage in activities likely to be undertaken on a trail/greenway. Because of the present lack of substantial trail mileage in O'Fallon, the majority of residents are going elsewhere to engage in them.

A substantial number of elementary and secondary school children already use bicycles on streets and sidewalks for transportation and/or recreational activity, and significantly higher number would use bicycles if improvements were made to facilitate riding. There is no quantifiable local data on adult bicycle usage in the area; however, data from regional and national sources enables an estimate of existing usage and possible additional bicycle usage with on-street system improvements. It is probable that new or improved on-street bikeway facilities are likely to be used by a greater proportion of O'Fallon's existing population, and that usage levels will further increase as the city's population continues to grow.

In terms of projected trail needs for O'Fallon, the application of national trail standards to the city's Year 2000 population of 21,910 indicate that there was a need for almost 22 miles of multipurpose trails at that time. Using the city's 2010 population projection of 31,000, approximately 31 miles of multipurpose trails will be needed in order to provide an adequate level of service. Presently, the city has about 2.5 miles of trails in existing parks. Therefore, 28.5 additional miles of multipurpose trails will be needed over the next six years. (It should be pointed out that this need is for paved

trails only. The study provides a separate estimate of potential all terrain bicycle – ATB -- trail needs.)

In order to establish a functional, efficient, and usable on-street bikeway system, most of the city's streets should have some level of bikeway treatment. This would result in the creation of an overlay of key bicycle streets, bicycle routes, and bike lanes accessible to all residents and connecting to most activity centers. Such an approach would not necessarily be cost-prohibitive. This system would be intended for residents who use a bicycle for commuting or for short-distance utilitarian trips (to the store, library, etc.); and for recreational or workout riders who like the convenience of getting on their bike at the house and using the street system for a ride. It would also help to make selected streets safer for the many school children who already use them, and for increased anticipated usage.

In many locations on-street improvements could be as basic as the placement of signage, while in others it would require the establishment of bicycle routes and perhaps bicycle lanes. At other locations cut-throughs at key cul-de-sacs might be appropriate in order to provide for route continuity or a significantly more direct route.

### Bicycle Facilities Plan.

#### A. Goals and Objectives

1. Develop Bikeways as an Important Element in the City's Transportation and Recreation System
  - a. Establish a Bicycle Facilities Committee (BFC) comprised of representatives from the Departments of Public Works, Parks & Recreation, and Planning, to oversee *design, development, engineering and ongoing operation* of the bikeway system.
  - b. The BFC should meet regularly and on an ongoing basis to develop and manage the physical components of the bikeway system.
  - c. Develop appropriate budget levels and an implementation timetable.
  - d. Selectively modify *existing* city streets when financially feasible, to include bicycle accommodations that are appropriate to traffic levels and to the type of traffic.
  - e. Ensure that *new* local, collector, and arterial roads are designed to include bicycle facilities that are adequate for projected traffic levels as well as the anticipated type of traffic (automobiles, trucks, and buses).
  - f. Utilize, to the extent feasible, inactive rail corridors as well as utility and drainage corridors, to develop a trail/greenway system that interconnects neighborhoods with institutional, commercial, and retail areas.
  - g. Strive to ensure that the network of linear trails and on-street bikeways is sufficient to enable bicycle movement between most residential, institutional, and commercial/retail land uses as directly as possible.
  - h. Adhere to appropriate federal and state design guidelines and standards for bicycle facilities.
2. Establish Programs to Effectively and Safely Use the Bikeway System

- a. Establish a Bicycle Task Force (BTF) made up of representatives from the Police Department, local schools, businesses and the community at large, *to oversee development of programs* to promote effective usage of the Bikeway System. The Mayors Office or a designee should make appointments.
- b. The BTF should meet regularly to oversee the implementation of all programmatic aspects of the Bicycle Facilities Plan.
- c. Support the Police Department in the enforcement of all applicable state laws regarding bicycle operation and road-sharing, and in the development and enforcement of additional local ordinances as appropriate.
- d. Educate cyclists on safe bicycle operation.
- e. Educate both bicyclists and motorists on how roads can be safely shared.
- f. Encourage bicycle usage for transportation, recreation, and fitness purposes.

## B. Bicycle Facility Components

### 1. Trails

It is proposed that several additional trails be developed and interconnected – through a system of bicycle routes and bicycle lanes – with the three existing facilities in Hesse, Rock Springs, and St. Ellen Mine Parks. These trails will become the backbone of O’Fallon’s new interconnected bikeway system, and would ensure the preservation of alternative transportation, recreation, and environmental habitat corridors as residential development continues. The new trails would be developed within designated greenways as well as the proposed Gateway Connector corridor and would include: North Extension of Hesse Park Trail; Ogles Creek Trail; Engle Creek Trail; Rock Springs Branch Trail; Silver Creek Trail; and a trail on the proposed Gateway Connector Alignment.

### 2. On-Street Bikeways

The On-Street Bikeway System consists primarily of accommodations intended to facilitate travel connections for bicyclists, including movement between city parks, downtown commercial establishments, and other activity centers. The primary intended users of this system are experienced and casual adult cyclists, and teenage riders who could most appropriately use an on-street bikeway system. The arterials and collectors within this system are not intended for child riders who, under the supervision of their parents, might most appropriately use other elements of the system including trails, sidewalks (in accordance with AASHTO bikeway guidance<sup>1</sup>), and low volume residential streets.

An extensive on-street system of bikeways should be developed to provide alternative transportation facilities for all areas of the city, as well as interconnections to activity generators and to the trail system described above. Segments and treatment types are

described in Chapter 2.

In addition to these bikeway improvements, the city should promote and encourage bicycle accommodations on connecting state and county-maintained roads. It should also promote cooperation with Collinsville, Lebanon, Mascoutah, and Scott Air Force Base to establish connections to bordering bikeways in those communities. Bikeway connections to St. Clair County Transit and Metrobus lines are also very important in terms of further encouraging bicycle usage and supporting transit-oriented development (TOD).

### C. Implementation Strategy

This section provides a preliminary opinion of cost to develop the bicycle facility system identified in the previous section. This is essentially a rough-order-of-magnitude (ROM) estimate that has been developed based on experience with other bikeway projects in the St. Louis Metropolitan region. The level of estimation is considered to be typical for a planning study. At this planning stage, it cannot reflect the more precise estimates that would be developed during the design/engineering phase of work. Moreover, it cannot account for future conditions in the construction market, which would determine actual price outcomes during the bid phase of work.

<u>Plan Element</u>	<u>Length (Mi.)</u>	<u>ROM Estimate</u>
North Extension of Hesse Park Trail	2.8	\$770,000
Ogles Creek Greenway and Trail	6.5	\$1,787,500
Engle Creek Greenway and Trail	6.5	\$1,787,500
Rock Springs Greenway and Trail	4.5	\$1,237,500
Silver Creek Greenway and Trail	9.5	\$2,612,500
Trail on Gateway Connector Alignment	7.5	\$2,062,500
On-Street Bikeway System	<u>73.5</u>	<u>\$6,289,680</u>
Total Bikeway Mileage & ROM Cost Est.	110.8	\$14,484,680

The estimated costs to construct O'Fallon's proposed bikeway system are substantial, yet achievable with an appropriate funding and phasing strategy. A variety of potential funding sources to implement this plan are available, and include: TEA-21 Enhancements (successor program to be enacted); Surface Transportation Program Funds; Open Space Land Acquisition and Development Program; Local Funds; and developer contributions.

Several action steps are recommended in order to implement O'Fallon's Bicycle Facilities Plan. Among them are the following:

- Local adoption by the O'Fallon Parks Board and the City Council. Adoption of the plan as a policy will ensure implementation of the system.
- Application of the City's Parkland Dedication Code, as the city continues to build-out.

Encouragement, Education and Enforcement. Bicycling has been one of the most popular forms of recreation in the United States for some time. Well over 35 million American adults

ride regularly, and this number has been steadily increasing since 1983.<sup>2</sup> Many of these riders use public streets for recreational, and some utilitarian/commuting activity. A variety of programs related to the encouragement, education and enforcement of proper bicycling behavior has evolved to facilitate usage of bicycles by adults and children. These are summarized below:

1. Encouragement Activities. This category includes establishment of a Technical Advisory Committee to guide the process; a brochure, including a map of the bicycle system and park system; special events; and encouraging the installation of bike lockers or racks, and to install showers to promote commuting.

2. Education Activities. This category addresses the need to learn the how-to's of bicycling in order to provide cyclists with skills to use trails and streets

3. Enforcement Activities include establishing basic rules and regulations for trails under O'Fallon's jurisdiction; stocking supplies of bicycle safety material, maps, and rules of the road at kiosks or other stations within parks; and other techniques described in the Plan chapter.

Monitoring and Evaluation. The implementation of the O'Fallon Bicycle Facilities Plan should be monitored by representatives of the Department of Parks & Recreation and the Department of Public Works, working closely with other departments as necessary, and with the Bicycle Task Force.

The utilization of local and external resources as well as the timetable for completion of development should be central elements of this monitoring process. Monitoring of facilities usage should also occur, preferably on an annual basis. Regular progress reports to the Parks Board and to the City Council should be made, including recommendations as to whether program resources, scoping, or its timetable need to be modified.



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# I. Existing Conditions and Analysis

## Introduction

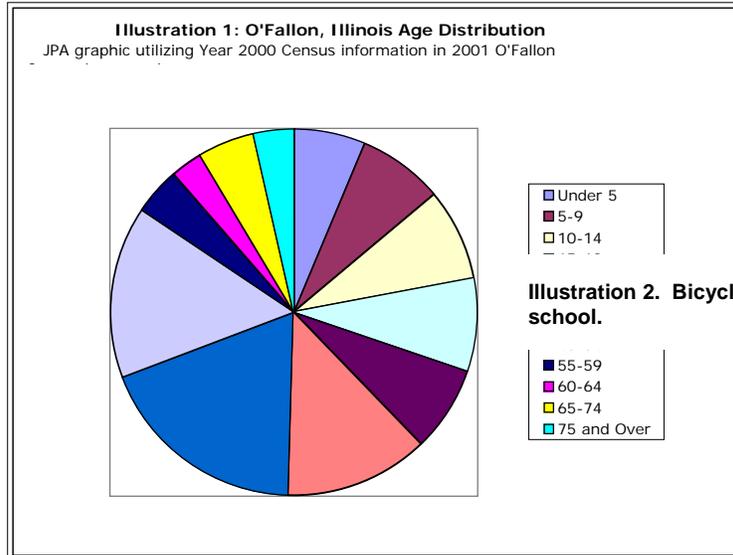
This report describes and analyzes existing conditions in the City of O'Fallon, Illinois, as they relate to bicycling, and the establishment of bicycle facilities in the city. The data and analysis in this report will be used as a foundation to subsequently draft a Bicycle Facilities Plan, as well as an implementation strategy to put the plan in place. For reference purposes, two base maps showing existing conditions in O'Fallon have been included at the end of this report.

## A. Summary of Existing Socio Economic Factors Related to Bicycling Activity in O'Fallon

### 1. Population Growth and Demographic Characteristics

The purpose of this section is to provide an overview of population and demographic characteristics as they relate to conditions and needs for bicycling in O'Fallon, Illinois. The population and demographic data from the City's last Comprehensive Plan will be reviewed here, as part of the baseline for the analysis which will be undertaken in the Phase I Report.

O'Fallon is characterized in the 2001 Comprehensive Plan as a fast-growing suburban activity center. Between 1990 and 2000, its population grew by more than 36% to 21,910 persons, as more than 2,200 residential building permits were issued. Household and family size in 2000 averaged 2.62, and 3.13 persons respectively. Over the next decade-and-a-half, the city's population is projected to be between 37,000 and 39,000, an increase of 69-78%. If this level of growth is attained, O'Fallon will have an increasingly diverse population with a multiplicity of cycling needs – both practical and recreational.



**Illustration 2. Bicycles parked at a local school.**

Illustration 1 shows the city’s age distribution using population data from the city’s 2001 Comprehensive Plan. Significantly, almost 25% of O’Fallon’s population is made up of children and young adults - individuals between the ages of 5 and 19 years. In other cities, many individuals in these age cohorts typically use bicycles for recreational and transportation purposes, and field reconnaissance in O’Fallon during the course of this study suggests that bicycle usage here is significant as well. During weekdays, for example, many bicycles are observed on racks at local schools. (See Illustration 2.) In addition, older bicyclists are frequently observed on city streets at this time as well.

## 2. Commercial Growth

The construction of Interstate 64 has stimulated extensive commercial development in and around O’Fallon. This base is anchored by St. Clair Square Mall. Between 1990 and 2000, more than 160 commercial building permits were issued in the city. Commercial growth is expected to continue at and around highway interchanges, and along commercial corridors. This growth, coupled with current design requirements for shopping areas, presently limits accessibility by bicycle to many commercial/retail developments.

Commercial development obviously has had a positive effect on O’Fallon’s economy, as it has elsewhere. However, such development, coupled with the



typically low vehicle occupancies that are found in most cities, results in significantly higher traffic levels on the street system. Traffic, and how it is affected by single mode-dominant transportation systems, will be more closely examined in section B1.

## B. Physical Features in O'Fallon

### 1. Streets

O'Fallon's streets are functionally classified as local, collector, arterial, and interstate/freeway (refer to Illustrations 3,4, and 5). The lowest classification is the local street, which has relatively low traffic volumes. The higher functional classifications have correspondingly higher traffic volumes, speeds and, frequently, greater truck and bus traffic. Presently, the entire street system totals more than 120 miles, and this is being increased as development continues. With the exception of a short length of Lincoln Avenue, which is an arterial with a marked bicycle route, there are presently no designated bicycle facilities on the road system.



Illustration 3. 3<sup>rd</sup> Street functions both as a residential and a collector street.



Illustrations 4 and 5. State Street (left) is an arterial, while U.S. 50 (right) is a highway.

The lack of designated bicycle facilities is not as significant within the eighty-five square block central portion of the city. This area, roughly bounded by U.S. 50, Smiley, Cambridge/old rail corridor, and Madison/Fountainbleau, comprises the city's historic core, which was built on a street grid concept (straight streets, no cul-de-sacs) that was a benchmark of nineteenth century city planning. It occupies roughly 15-20% of O'Fallon's present land area. The old



Illustration 5a. West 3<sup>rd</sup> Street, near Westwood, looking east. Aside from the fact that the cyclist in this image is traveling on the wrong side of the street, the old street grid in O'Fallon's historic core provides ample opportunity for efficient bicycle movement.



street grid is essentially intact today and, aside from the lack of signage and minor additional improvements, provides ample opportunity for efficient bicycle movement. Refer to Illustration 5a.

Bicycle (and automobile) movement becomes more challenging on streets that are laid out in the typical subdivision pattern that has characterized development in O'Fallon over the past 30-40 years. Here, the presence of curving streets and numerous cul-de-sacs results in the need to take more circuitous routes to destinations than would otherwise be possible on a typical street grid. This suburban pattern, which represents about 80-85% of the city's present land area, would particularly benefit from a series of selected improvements to facilitate bicycle movement. Irrespective of location and as with many urban areas, the entire city has many intersections with moderate-to-heavy traffic and extensive turning movements.

The city has programmed the construction of two new roads in the immediate future. These are shown in Illustration 5b. Additional streets will be subsequently constructed to support continued residential and commercial development. In particular, this new activity will occur in the northwest quadrant of the city where rapid growth is anticipated.



Illustration 5b. New streets proposed by the city.



Even with new roads, however, greater traffic demands will be placed on O'Fallon's street system in the future as the city continues to grow. This is primarily due to the fact that transportation systems both here and throughout the country are dominated by one mode – the automobile – instead of several that could include walking, bicycles, transit and local shuttle systems. Multi-modal systems enable the movement of larger numbers of people on paved surfaces that are not significantly different from their single-mode counterparts. This is reflected in the actual experience of other cities in managing the dynamic of development, population growth, and road building activity: The use of multiple modes of transportation along with congestion management tools is often an efficient and more environmentally-friendly way to move large numbers of people. Examples of cities that are developing multi-modal transportation systems include Madison, Wisconsin; Chicago, Illinois; Portland, Oregon; and Palo Alto, California.



Traffic volume is an important consideration in the assessment of bicycle facilities. For an on-street cyclist, average daily two-way traffic (ADT) of 1,000 vehicles is often considered the threshold between low and moderate traffic. ADT of 3,000 to 5,000 is the threshold range between moderate and heavy traffic. ADT's are daily (24 hour) measures.

If these counts were to be compressed into a 12 hour timeframe (7 a.m. to 7 p.m., the time when most people ride bicycles) this would provide a very conservative estimate of the traffic activity likely to be encountered by an on-street cyclist. Using this 12-hour period, the average daily two-way traffic likely to be experienced by a cyclist in “low” traffic conditions is therefore slightly more than 1 vehicle per minute (1.38 vehicles). The ADT likely to be encountered by a cyclist in moderate traffic (using the high end of the threshold range, or 5,000 vehicles, is about 7 vehicles per minute. Heavier traffic conditions for a cyclist, then, would be in excess of 7 vehicles per minute.

Using these values coupled with actual traffic counts from the city as of March 19, 2004, two locations, Lincoln south of Highway 50, and State Street east of Green Mount Road, are considered to be high traffic volume streets for cyclists (using the high end of the threshold range of 5,000 ADT). Other streets are close to reaching this high-traffic threshold, including: Lincoln north of Highway 50, and Hartman Lane. Many of these streets, in addition to having generally high traffic volume, also have considerable commercial traffic (trucks and buses), which is another important issue in bicycle facility planning.

Streets with moderate traffic for cycling purposes include State Street east of Lincoln, North Smiley Street, Seven Hills Road, 3rd Street, Milburn School Road, Kyle Road, Simmons Road, and Central Park between Green Mount Road and Hartman Lane. These streets also have some truck traffic.

Low-traffic roads include E. Wesley Road between North Smiley Road and Seven Hills Road, Pierce Road east of Green Mount Road, and Regency Park south of Highway 50 and east of Porter Road. In addition to having low traffic volumes, there is very little commercial (truck/bus) activity on these streets.

Because the city samples traffic counts at selected locations over a multi-year period, this data is selective. However, it will provide guidance in helping to identify recommended bicycle treatments on other roads and streets as well, in the subsequent plan chapter of this report.



In addition to traffic volume, busy intersections are another issue in assessing a street system for bicycle accommodations. All of the city’s major roads – State, U.S. 50, Lincoln, Green Mount, Hartman, North Smiley, Seven Hills, Milburn, Kyle, and Porter – have intersections where traffic volume and turning movements present specific challenges to bicycle circulation.

## 2. Trails

Presently, there are several existing trails in O’Fallon. The Hesse Park Trail, a .8 mile long asphalt-paved facility which was built on a converted railroad corridor in Hesse Park; and the 1.7 mile long asphalt trail at Rock Springs Park.



Illustration 6. Hesse Park Trail (south entrance).



Illustration 6a. North entrance to Hesse Park Trail .

e Park Trail (south entrance).

The Hesse Park Trail is in configuration. At its south end (shown in Illustration 6), a trailhead provides connectivity to one of the city’s older core neighborhoods. At its northern terminus, it provides a convenient connection to newer subdivisions that are somewhat distant from the city’s historic core (Illustration 6a). The Hinchcliffe school is located immediately west of the park. The Hesse Park Trail has become a popular facility in O’Fallon. It is an excellent example of the role that a linear trail can play in linking neighborhoods to parks, schools



and urban centers. Such linkages, if master-planned and coordinated in future residential and commercial development, can provide critically important recreational amenities. Of equal or greater importance is the fact that they can provide alternative transportation assets that can eliminate some motor vehicle trips.

The Rock Springs Park Trail is also a well-used facility, and serves residents in the eastern and southeastern portion of the city. It is a loop trail which - with no current connections to other bikeways - addresses recreational interests only. (Refer to Illustration 7.)



Illustration 7. Entrance to trail in Rock Springs Park.

### 3. Sidewalks

An extensive sidewalk system is present in O'Fallon, beginning with an essentially complete system in the city's historic core. Subdivisions often have a partial sidewalk system, usually on one side of each street. Typical widths in the older sections of the city are 5 feet, while subdivisions often have 4 foot widths. However, many areas of the city have sidewalk gaps, as the following graphic indicates (Illustration 8 ). The city is planning to fill these gaps in future years as development continues.

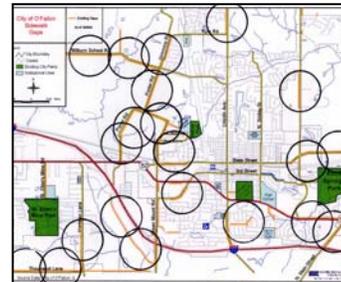


Illustration 8. Sidewalk Gaps. (Graphic provided by City of O'Fallon)

In the first half of the 1900's, urban sidewalk systems served populations with very low motor vehicle ownership who patronized readily-accessible neighborhood stores. The sidewalk also served as a conveyance to nearby bus stops for intermediate and longer trips. Walks were also used by milkmen, other delivery services, as well as a variety of itinerant merchants. Walking was a central component of urban life, and sidewalks were therefore a core element of the urban transportation infrastructure.



During the last half of the century, as motor vehicle usage increased, neighborhood businesses declined, and walking became less-dominant as a form of transportation. As a result, sidewalks became somewhat vestigial – an appendage from an earlier period. They were used primarily by children who played and walked to school on them, by residents for occasional strolls, and by letter carriers. Also during this period, subdivisions began to be a prominent part of the urban landscape, and sidewalks – perhaps perceived to be less important – were constructed to narrower widths, often 4 feet or less.

More recently, however, sidewalks are being increasingly used for a variety of exercise-motivated activity including leisurely walking, power-walking, and jogging, and to socialize with neighbors. Younger children, who have always used sidewalks for bicycle-riding, continue to do so especially as streets have become busier. (See Illustrations 9 and 10.)

**Illustration 9.** Pedestrian activity has increased as people have become more health-conscious. This photo also illustrates an example of the older, wider sidewalks in urban core area.



**Illustration 10.** Although bicycles are technically illegal on sidewalks, they are often safer places for young children to ride. This becomes more of a challenge on the narrower sidewalk sections that are found in subdivisions.



#### 4. Public Facilities and Institutions

O'Fallon has many public facilities and institutions which are an important part of the city's community fabric. Examples include parks, government centers, post offices, schools, libraries, and other facilities. There are four principle municipal parks: O'Fallon Community Park, located near the center of the city; Hesse Park at the northwestern corner of the central portion of the city; Rock Springs Park, located near the eastern end of O'Fallon, and Rohr Park, near the western edge of the city. Ogle Creek Park, a new municipal facility, is located in the far northeast corner of the city. The City Cemetery is also a significant open space and historical asset. Non-municipal open space facilities are also present in and near O'Fallon, including the large St. Clair



Recreation Complex west of the city, and the O’Fallon Sportsmen’s Club to the south.

Government and other institutions include the O’Fallon Government Center, Public Library, post offices, churches, several elementary and parochial schools, and O’Fallon High School. The bicycle is used by a significant number of children as a transportation device to most of the elementary schools, as Illustrations 10 and 10a indicate.



Illustration 10a. Bicycle commuting levels are significant at many area elementary schools.

All community facilities provide services that are essential to community health, safety and the quality of life. Together with the commercial development previously described, they are also activity centers that comprise an important part of the city’s physical environment. Collectively, they make up most of the local trip destinations in the city, and this fact is significant for purposes of planning bicycle facilities. Although the automobile obviously is and will continue to be the most predominant transportation mode for accessing these destinations, it is possible for the bicycle to provide a significant means of alternative local transportation for some of these trips. This will be further examined in Section C.

### 5. Rail Lines

One active rail line, the CSX, bisects the city running on an east-west axis at State Street, through the downtown core area. The corridor is very active, with approximately 12 trains per day. Although this rail line will probably remain active for years to come, the city should monitor its status with the Illinois Bureau of Railroads (an office of the Illinois Department of Transportation – IDOT). Were the



Illustration 11. CSX railroad looking northwest from Downtown near State Street. Could the corridor ever be abandoned by CSX, the recreation tourism that often accompanies a rail-to-trail conversion could help to provide an economic stimulus to the historic downtown core.



corridor to cease its economic usefulness as a railroad, it would be prudent to investigate other replacement uses. A rail-to-trail conversion of a portion of the corridor could establish another important trail in the city and would help to provide an economic stimulus in the form of recreation tourism to the historic downtown core. Illustration 11 provides a view of the CSX line and its proximity to downtown.

Railroads are regulated by the federal Surface Transportation Board (STB), and must file any status changes with a designated state authority, in this case the Bureau of Railroads. Typically, when a railroad elects to cease operation of a line, it will first designate its status as ‘inactive’ with the state agency. At this stage, property control still rests with the railroad. The subsequent step toward disposition is a filing for abandonment, for which it must also notify the state office. At this critical juncture and before the railroad is given permission to dispose of the property, federal law provides a brief window of opportunity for an entity such as a unit of government or a not-for-profit corporation to file a petition under another provision of federal law referred to as Rail Banking, to convert the corridor to a trail.

Although the purpose of the Rail Banking law is to ‘mothball’ old rail corridors for possible re-activation to rail use, re-activations have been virtually non-existent. Over the past fifteen or more years, the rail banking provision has stimulated development of hundreds of trails across the country, virtually all of which are still operating as trails. Moreover, many of those that were developed close to historic commercial districts or other appealing destinations have become popular tourism attractions, providing an important new economic stimulus to local economies. Examples include the Katy Trail segments in Downtown St. Charles, and in Rocheport, Missouri; the Loveland-to-Morrow Trail (Ohio); and the I&M Canal Trail in suburban Chicago, among many others. Railbanking and subsequent conversion to trail use should not be overlooked for any active rail line, however economically sound the line may appear to be, as the rail industry has been in a period of contraction and consolidation.

Remnants of another rail corridor, now abandoned but essentially still intact, extend roughly from Kyle Road north through the Madison County line. This corridor would be a logical extension of the Hesse Park Trail (which itself was part of the original railroad corridor). However, because the corridor has already been abandoned and parcels are now owned by several parties, acquisition would involve multiple negotiations. As an undeveloped corridor, it has limited economic value in its present condition. Were this facility to be



developed into a trail, an on-street bicycle route would have to be established on Illini Drive from the north terminus of the existing Hesse Park Trail, to Kyle Road.

## 6. Natural Features

Several natural features help to define the physical makeup of O'Fallon. The topography of the city is generally flat to rolling. The city's current comprehensive plan describes the majority of land area as having gentle to moderate slopes of up to 10%. This topography lends itself well to cycling and walking, both as a recreation and an alternative transportation activity.

Streams are the second defining natural feature in the city. O'Fallon is trisected by three stream corridors running generally from the southwest to the northeast. These include Ogles Creek on the far north, Engle Creek on the near north, and Rock Spring Branch on the south. Together, these streams (principle channels only) total approximately fifteen miles, and are a part of the Silver Creek and the Richland Creek Watersheds. Two of the three – Engle, and Rock Spring - form a connection near the the city's eastern boundary. Slopes adjacent to the creeks are classified as moderate-to-steep. The comprehensive plan calls attention to the potential for increased difficulty and expense related to intense development close to these corridors, and that these factors impose significant limitations on development.

As development in O'Fallon continues and open lands are converted to residential and commercial uses, it is critical for the edges of these streams and their corridors to be preserved as natural greenways to protect their multiple roles in natural storm drainage, air pollution control (the extensive tree canopy provides important air filtration), and as ecological corridors. The ecological corridor concept is recognized by animal and plant biologists as a critically important mechanism that protects animal and plant habitat by facilitating movement and promoting healthy species diversity.

While the protective imperatives of the greenway corridors preclude residential and commercial development, they are quite compatible with a variety of passive and semi-active open space uses. They are ideal sites for a linear trail system with semi-active park nodes. A fifteen mile long greenway-based trail system is possible here, and would expand the city's existing trail mileage by a factor of at least six.



The park nodes arranged along the greenways would provide new close-to-home park opportunities for future residential developments, and could pay significant dividends in terms of the per capita cost of park development. This is because a given amount of small park node acreage, arranged on a linear greenway, will be in closer proximity to a larger number of residents, and therefore more accessible, than the same acreage arranged as one large, centrally-sited park.

## C. An Overview of Bicycling from a Broader Perspective

### 1. Types of Bicycle Facilities

This section will define a variety of bicycle facility terms as used by the American Association of State Highway and Transportation Officials (AASHTO), the national association that disseminates guidelines for the development of such facilities. Some or all of these facility types will be incorporated into the bicycle facilities plan to be developed in a later phase of this study.

Bicycle Facility. A generic term describing any marked or unmarked street route, bicycle lane or path.

Bikeway. Another generic term for any road or path which in some manner is specifically designed as being open to bicycle travel, regardless of whether the facility is designated for the exclusive use of bicycles or is to be shared with other transportation modes.

Key Bicycle Street. A roadway not designated by directional and informational markers, striping, signing, nor pavement markings for the preferential or exclusive use of bicycle transportation, but which tends to be used by bicyclists.

Bicycle Route. A segment of a system of bikeways designated by the jurisdiction having authority, with appropriate directional and informational markers, but without striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Sometimes referred to as a *Class III bikeway*.



**Bicycle Lane.** A portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Usually couplets, each one in a different direction and adjacent to the outside through travel lane. Sometimes referred to as a *Class II bikeway*.

**Bicycle Path.** A path that is physically separated from motor vehicle traffic by open space or a barrier and either within the road right-of-way or within an independent right-of-way. Also referred to as a *Class I bikeway*.

## 2. Metro East Bicycle Facilities

The Metro East area has a growing number of major bicycle facilities. Within St. Clair County, the principal facility is the Metro Bike Link, a 4 mile long bicycle path that extends from Southwestern Illinois College to North End Park in Belleville. Another facility is the Metro East Levee Trail (7.6 miles) Total trail mileage in St. Clair County is more than 12 miles.

Several cities within St. Clair County also have smaller recreational trails either within local parks, or as stand-alone linear trails.

Madison County has eight major bicycle paths including the Bluff Trail (1.7 miles); Confluence Trail (17.1 miles); the Nature Trail (10.6 miles); the Nickel Plate Trail (4.7 miles); the Schoolhouse Trail (11.4 miles); the Watershed Trail (4.7 miles); the Delyte Morris Trail (2.3 miles); the Glen Carbon Heritage Trail (6.9 miles); and the Vadalabene River Road Trail (approximately 11 miles). The total present trail mileage in Madison County is more than 70 miles. Refer to Illustration 12. Several of the trails are interconnected either directly or indirectly through designated bicycle routes, to form a substantial bikeway system that affords long-distance recreational and bicycle commuting opportunities. The southeastern portion of this system is located only about 6 miles from O'Fallon's facilities planning area. Many of Madison County's larger cities also have trails located within city parks.



Illustration 12. Madison County Nature Trail

There are no major bicycle paths in Monroe County. However, the county has many key bicycle roads that are extensively used by recreational cyclists for individual and organized rides.



The Illinois Department of Transportation (IDOT), has underwritten the development of many Metro East facilities, through the federal Transportation Efficiency Act for the 21st Century (TEA-21), and its predecessor program, ISTEA. This program is expected to be re-authorized late in 2004 or early in 2005.

IDOT also has a policy of bicycle accommodation on its road system, meaning that it tries to facilitate bicycle movement by posting Share the Road with Bicycles signs, and replacing dangerous drainage grates with bicycle-safe grates. Metro East roads have significantly benefitted from this program.

The formation of the Metro East Park and Recreation District (MEPRD) represents a major new trail/greenway development asset for the area. Created as a special taxing district, MEPRD plans and funds major park and greenway efforts in both St. Clair and Madison Counties.

### 3. Facilities on the Missouri Side of the St. Louis Region.

The St. Louis area also has a growing number of major bicycle facilities including: The Katy Trail in St. Charles and other counties along the Missouri River corridor (230 miles); the Riverfront Trail (11 miles); the Old Chain of Rocks Bridge (1 mile); Grant's Trail (6 miles) and its proposed extension to Kirkwood (2 miles); the Creve Coeur Lake Park Trail (3 miles) ; and the Page Connector bike facility (2 miles). Excluding portions of the Katy Trail which are not located in St. Charles County, and proposed projects, St. Louis's major bicycle facilities total more than 50 miles. This system includes two important regional bicycle facility connectors: The Old Chain of Rocks Bridge, which connects the 11 mile long Riverfront Trail to most of the Metro East trails; and the Page facility, which links St. Louis County bicycle facilities with the KATY Trail. Expansions or other improvements to many of the St. Louis facilities are being funded through MEPRD's St. Louis counterpart, Great Rivers Greenway.

### 4. Selected Facilities in Other Parts of the Country

This section briefly examines selected bicycle facilities in other parts of the country, with a bit more focus on midwestern facilities, to gain further insight on the scope and impact of these facilities on local communities.

The State of Ohio's Buckeye Trail system is approximately 800 miles in length. It really consists of a series of individual trails and bicycle route connectors throughout the state which are blanketed by the Buckeye Trail designation and



marketed as a single trail asset by the state's tourism office. One of the trail elements is the Loveland-to-Morrow segment of the Little Miami Scenic Trail, which joins towns of the same name. Approximately 11 miles in length, this trail is heavily used by both residents and tourists, and is now an important regional and local economic asset. The facility – built on an old rail corridor - was developed with state resources and extensive support from both communities. A portion of Loveland's old downtown commercial district is located on the trail, and contains a number of prospering businesses – including the ice cream shop shown in Illustration 13 -- that cater to trail users.



Illustration 13. Ice Cream Shop in Loveland, Ohio.

The relationship between trails and recreational tourism has been demonstrated in these and many other project examples. The data suggest that a stronger economic future can exist for O'Fallon's historic downtown core if it were to be enhanced with a comprehensive bikeway system that includes extensive trails, coupled with a coordinated tourism marketing effort.

## D. Existing Bicycle Usage and Projected Bicycle Facility Needs

### 1. An Estimate of Existing Bicycle Usage

Hard data on existing bicycle usage in O'Fallon is limited, due to the absence of a local survey that would measure such usage. However, indirect sources for the assessment of existing demand do exist, which enable the development of a reasonable estimate of bicycle activity and other related activities likely to be undertaken in and around the city. This will be examined below.

Participation in Activities Likely to be Undertaken on a Trail or Greenway. The Metro East Park and Recreation District (MEPRD) completed its Long Range Development Plan in 2003. Through a detailed and statistically valid survey, it measured *rates of regular participation* by households in St. Clair and Madison Counties in a wide range of activities. Included in this survey were *activities that are very likely to be undertaken on a trail or a greenway*. For example, the results indicated that 65% of the households walked or jogged regularly; 47%



regularly visited nature areas; 27% regularly engaged in bicycling and/or BMX activities; 20% hiked regularly; and 16% regularly ran.<sup>1</sup>

From MEPRD's multi-county household survey data and using the given percentages, estimates of probable regular participation by O'Fallon households in activities likely to be undertaken on a trail/greenway can be made. These estimates are shown in the table below. O'Fallon's Year 2000 population and average household size were 21,910 and 2.62 persons respectively. Therefore, the estimate was based on 8,363 O'Fallon households (Illustration 14:

**Illustration 14. Estimated Regular Participation by O'Fallon Residents in Activities Likely to be Undertaken on a Trail or Greenway**

Leisure Activity	MEPRD's Multi-County Percentage of Households who Regularly Participate	Probable O'Fallon Participation Events in Activities Compatible with Trail Facilities <sup>2</sup>
Walking/Jogging	65%	14,242
Visiting Nature Areas	47%	10,298
Bicycling/BMX	27%	5,916
Hiking	20%	4,382
Running	16%	3,506
Total Participation Events	n.a.	38,345

The MEPRD survey also measured the *leisure activities in which the respondent households participated most often*. Of the activities that are very likely to be undertaken on a trail or a greenway, respondents participated *most often* in the following (in descending order): walking/jogging, bicycling/BMX, and visiting nature areas.

The actual *number* of O'Fallon residents participating in these events is unknown. However if it were conservatively assumed that an individual would participate in such events about six times per year, then this represents approximately 6,400 O'Fallon residents who regularly participate in leisure activities that are likely to be undertaken on a trail or greenway.

<sup>1</sup> Long Range Development Plan, April 2003. Metro East Park & Recreation District (MEPRD). Page 50.

<sup>2</sup> Based on O'Fallon's household size of 2.62 persons and population of 21,910. Total participation exceeds the population total because of participation in multiple activities.



Because of the present lack of substantial trail mileage in O'Fallon, the majority of these individuals could be undertaking trail related leisure on existing trails and greenways outside of O'Fallon, including the Metro Bike Link Trail in St. Clair County, and the Schoolhouse, Confluence, and Nature Trails in Madison County. It is not unreasonable to assume that this "market" of users could become patrons of a trail system in O'Fallon.

Elementary and Secondary School Children Likely to Use Bicycles on Streets and Sidewalks for Transportation and/or Recreational Activity. From field reconnaissance at local schools, it has been shown that bicycle usage is readily apparent, even without improved bicycle facilities. An estimate of this usage can be made based on the existing population of elementary and secondary school-age children in O'Fallon, and by making assumptions of how many children are likely to ride bicycles regularly, either to school or for other practical purposes.

Elementary and secondary school children between the ages of 10 and 14 are believed to be the group using bicycles most intensively. They are most likely to consider the bicycle as a practical transportation option for school or other local trips. Children in this grouping are often considered by their parents to be old-enough to ride bicycles without supervision. The 10-14 age cohort also matches the age grouping reported in the Census population count and is therefore readily measurable.

The 2000 Census reported 1,855 children in the 10-14 year old age category who reside in O'Fallon. For purposes of this study, it is assumed that 20% of the cohort – 370 children – may either occasionally ride bicycles to school or occasionally use them for other local transportation trips, such as going to a friend's house, shopping, or other practical trips. This percentage is believed to be conservative, and reflects the fact that areas outside of O'Fallon's 86 square block urban core have lower population densities, non-grid street systems, and higher traffic levels which, together, present an imposing set of limitations on the safe movement of children who ride bicycles.

Older children are also a part of the bicycling picture in O'Fallon. However, while 15 and 16 year olds may ride bicycles, it is probable that their riding activity begins to decline as they approach driving age. In the Census of Population, these 15 and 16 year-olds are also part of a wider age cohort reported in the 2000 Census (age 15 to 19). While some 15 to 16 year olds may ride bicycles, it is highly probable that the older portion of them (age 17-19) has very little interest in using bicycles for transportation. The 15-16 year-



old portion of this age grouping is estimated to number approximately half of the 1,823 who make up the cohort, or about 900 individuals. Among these 15-16 year olds and because we believe they ride bikes substantially less than their younger counterparts, it will be assumed that 10%, or about 90 individuals, occasionally ride bicycles either to school or for other practical transportation purposes.

Likely Adult Bicycle Usage on City Streets. There is no quantifiable local data on adult bicycle usage in the area. While there may be some overlap between the MEPRD data that estimates adults who presently ride bicycles on existing area trails, and on city streets, it is believed that these are not widely overlapping groups. This is because many of the adults who ride bicycles on trails in the Metro East area or the wider St. Louis region are doing so as part of a recreational, social, or exercise activity usually with family or friends, while those who ride bikes on the street system tend to do so as individuals either for exercise, practical (transportation) purposes, environmental reasons, or combinations of these purposes. The number of O'Fallon adult residents who use bicycles as a *mode of travel to work* is assumed to be insignificant due to the fact that, nationwide, bicycle commuting rates are very low. This is discussed in more detail below.

To gain an understanding of the level of adult bicycle usage on the streets of O'Fallon, a brief review of national travel mode and trip purpose data will be useful. Transportation planners measure travel activity in terms of five transportation modes, in order of prominence: car, public transit, walking, bicycle, and 'other'. In 1997, the percentage of Americans who regularly rode a bicycle as a *travel mode* was 1%, according to one source.<sup>3</sup> "Travel" refers to any trip purpose including shopping, errands, recreation, and getting to work.

Data on *commuting to work* is also available. The U.S. Census transportation to work data indicates that in 2001, .7% of the American work force regularly rode a bicycle or a motorcycle to work.<sup>4</sup> In another study of eight cities known to have high bicycle usage rates (Chicago, Los Angeles, San Francisco, New York, Phoenix, Boston, Sacramento, and Seattle), from .3% to 1.4% of the population rode bicycles to work in the year 2000. Although the data sources span several years, they are still useful in gaining an understanding of local on-street bicycle activity. Accordingly, the mode percentages reviewed above

<sup>3</sup> "Percent of Trips by Travel Mode, as of 1997 (all trip purposes)" Table by John Pucher, Transportation Quarterly, 98-1

<sup>4</sup> "Table 1-35: Principal Means of Transportation to Work." U.S. Department of Housing and Urban Development, American Housing Survey: various years.



will be conservatively standardized to .3% in order to develop an estimate of adult on-street bicycle usage for any trip purpose in O'Fallon. Therefore, using O'Fallon's Year 2000 adult population of 14,911, it is probable that there are at least 450 adult cyclists who currently use city streets on a regular basis.

Summary of Existing Usage. Current estimated existing bicycle usage, as well as other activities undertaken on trails and greenways and on city streets/sidewalks, is summarized in the table below (Illustration 15):

**Illustration 15. Summary of Estimated Existing Participation by O'Fallon Residents in Activities Undertaken on Trails, Greenways, and On-Street Bikeways**

Activity	Event	Number
People Engaging in Activities Likely to be Undertaken on Area Trails and Greenways	38,345*	6,400**
Elementary/Secondary School Children (10-14) Regularly Riding Bicycles on Streets/Sidewalks	n.a.	370
Older School Children (15-19) regularly Riding Bicycles on City Streets/Sidewalks	n.a.	90
Adults Regularly Riding Bicycles on City Streets/Sidewalks	n.a.	450
<b>Total</b>	<b>n.a.</b>	<b>7,310</b>

\* Number of times O'Fallon residents engage in activities likely to be undertaken on trails and greenways, based on MEPRD's multi-county survey. (Refer to text for further information.)

\*\* This number is an estimate that reflects the assumption that an O'Fallon resident would participate in an event likely to be undertaken on a trail/greenway 6 times per year,

These estimates are based on assumptions that the consultant team believes to be conservative, with a strong probability that new bikeway facilities are likely to be used by a greater proportion of O'Fallon's existing population, as has occurred on many other bicycle facilities, particularly trails. These usage levels will further increase as the city's population continues to grow.

## 2. Projected Bicycle Facilities Needs

Multipurpose Trail Needs. The National Recreation and Park Association (NRPA) publishes standards for a variety of open space-related facilities, including three types of trails: Walking/jogging trails, bicycle paths, and nature trails. Its benchmarks are .5 miles of each type of trail facility per 1000 population. (It does not have standards for a relatively new type of bicycle facility, the ATB/mountain bike trail.)



Since the scope of this study is limited primarily to bicycles, it will focus on this type of facility. From a practical and cost-efficiency perspective, however, if bicycle paths are designed to national standards for such facilities (including wide asphalt or concrete surfaces with soft mulch or gravel shoulders, and long turn radii), then they would also be more than sufficient for most walking/jogging needs, for people with disabilities, for roller-blading, and for many other non-bicycling trail activities as well. Moreover, there has been a major external funding source for the development of facilities designed according to bicycle path standards, whereas grant opportunities for walking/jogging trails and for nature trails are somewhat limited. (Funding sources will be more closely examined in a subsequent chapter of this study.)

In terms of projected trail needs for O'Fallon, therefore, two of the three NRPA facility categories should be combined and examined as one facility type: Multipurpose trails or paths that accommodate both bicycles, walking/jogging, and other related activities. According to the present NRPA standard of .5 miles of each type of multipurpose trail per 1000 population (1.0 miles total), and using the city's Year 2000 population of 21,910, there was a need for almost 22 miles of multipurpose trails at that time.

Because O'Fallon has been and continues to be a rapidly growing city, and because a comprehensive trail development program would require a multi-year effort, trail needs should be projected out to a future point. Accordingly, this study identifies 2010 as the horizon year. The city's current population projection for that year is 31,000. Using this projection coupled with the NRPA standard of 1.0 miles of trail per 1000 population, approximately 31 miles of multipurpose trails will be needed in order to provide an adequate level of service. Presently, the city has about 2.5 miles of trails in existing parks. Therefore, 28.5 additional miles of multipurpose trails should be developed over the next six years in order to meet the NRPA guideline.

Specialized Nature Trails and Mountain Bike Trails. In terms of nature trails (the third type of trail defined in the NRPA standards), no such trails presently exist. Nature trails are narrower paths paved with natural materials such as packed earth or soft gravel and sited in more rustic and environmentally sensitive areas where any activity other than walking would inflict environmental damage. Nature trails are intended primarily for walkers or hikers who desire a pristine natural experience, and are not suitable for any type of bicycle usage. Applying the NRPA standard (.5 miles of nature trail per 1,000 population), O'Fallon will need approximately 15.5 miles of nature trails by the year 2010.



Mountain, or off-road, bicycling is another branch of the cycling market not addressed above. Mountain bikes have become a major part of the bicycling market. However, most mountain bicycles are not substantially ridden on off-road MTB trails. They are ridden on conventional bicycle facilities and on the street. This may relate to the fact that there is a general shortage of specially designated trails for MTBs, and this lack of facilities is reflected both in O'Fallon and in the region. Therefore, it is probable that more off-road riding of MTBs would increase if more facilities existed for them. For this study, .1 mile of MTB trail per 1000 population is assumed to be adequate. A 3+ mile network of MTB trails in O'Fallon is therefore an appropriate goal for the city.

On-Street Bicycle Facility Needs. In order to establish a functional, efficient, and usable on-street bikeway system, most of the city's streets should have some level of bikeway treatment. This would result in the creation of an overlay of key bicycle streets, bicycle routes, and bike lanes accessible to all residents and connecting to most activity centers. Such an approach would not necessarily be cost-prohibitive. (This will be covered in a subsequent chapter.)

This system would be intended for residents who use a bicycle for commuting or for short-distance utilitarian trips (to the store, library, etc.); and for recreational or workout riders who like the convenience of getting on their bike at the house and using the street system for a ride. It would also help to make selected streets safer for the many school children who already use them, and for increased anticipated usage.

There are other important reasons to consider the development of a comprehensive on-street bikeway system some of which were discussed earlier. They include the following:

- The need to create additional transportation mode options in order to help alleviate future traffic congestion by shifting some local trips away from the automobile
- The opportunity to create a more livable – and marketable – community that can continue to attract desirable homebuyers in the future
- As a mechanism to interconnect trails

These improvements to establish an on-street bikeway system would require at least some level of treatment for a significant portion of the city's existing 120 miles of streets. In many locations it could involve improvements as basic as the placement of signage, while in others it would require the establishment



of bicycle routes and perhaps bicycle lanes. At other locations cut-throughs at key cul-de-sacs might be appropriate in order to provide route continuity or a significantly more direct route.

### 3. Conclusion

This chapter has provided a description of existing conditions as well as an analysis of issues and opportunities as they relate to the establishment of a comprehensive bikeway system in the City of O'Fallon. Specific plan recommendations and approaches to accomplish this will be presented in the next chapter.



## II. Bicycle Facilities Plan

### Introduction and Purpose

This chapter presents a coordinated plan for the establishment of bicycle facilities in the City of O'Fallon. It builds upon the information and analysis provided in Chapter I. It also takes into consideration the comments heard at the public meeting held on August 4, 2004. The purpose of this plan is to recognize and formalize bicycling as an element of transportation, recreation and fitness in the city.

### A. Goals and Objectives

1. Develop Bikeways as an Important Element in the City's Transportation and Recreation System
  - a. Establish a Bicycle Facilities Committee (BFC) comprised of representatives from the Departments of Public Works, Parks & Recreation, and Planning, to oversee *design, development, engineering and ongoing operation* of the bikeway system.
  - b. The BFC should meet regularly and on an ongoing basis to develop and manage the physical components of the bikeway system.
  - c. Develop appropriate budget levels and an implementation timetable.
  - d. Selectively modify *existing* city streets when financially feasible, to include bicycle accommodations that are appropriate to traffic levels and to the type of traffic.
  - e. Ensure that *new* local, collector, and arterial roads are designed to include bicycle facilities that are adequate for projected traffic levels as well as the anticipated type of traffic (automobiles, trucks, and buses).
  - f. Utilize, to the extent feasible, inactive rail corridors as well as utility and drainage corridors, to develop a trail/greenway system that interconnects



neighborhoods with institutional, commercial, and retail areas.

- g. Strive to ensure that the network of linear trails and on-street bikeways is sufficient to enable bicycle movement between most residential, institutional, and commercial/retail land uses as directly as possible.
- h. Adhere to appropriate federal and state design guidelines and standards for bicycle facilities.

## 2. Establish Programs to Effectively and Safely Use the Bikeway System

- a. Establish a Bicycle Task Force (BTF) made up of representatives from the Police Department, local schools, businesses and the community at large, *to oversee development of programs* to promote effective usage of the Bikeway System. The Mayor's Office or a designee should make appointments.
- b. The BTF should meet regularly to oversee the implementation of all programmatic aspects of the Bicycle Facilities Plan.
- c. Support the Police Department in the enforcement of all applicable state laws regarding bicycle operation and road-sharing, and in the development and enforcement of additional local ordinances as appropriate.
- d. Educate cyclists on safe bicycle operation.
- e. Educate both bicyclists and motorists on how roads can be safely shared.
- f. Encourage bicycle usage for transportation, recreation, and fitness purposes.



## B. Bicycle Facility Components

### 1. Introduction

This section addresses the physical aspects of the O'Fallon Bicycle Facilities Plan. The principle component is the plan on the following page (Illustration 17). Key elements of this plan include:

### 2. Trails

It is proposed that several additional trails be developed and interconnected – through a system of bicycle routes and bicycle lanes – with the three existing facilities in Hesse Rock Springs, and St. Ellen Mine Parks. These trails will become the backbone of O'Fallon's new interconnected bikeway system, and would ensure the preservation of alternative transportation, recreation, and environmental habitat corridors as residential development continues. They are described below.

North Extension of Hesse Park Trail. The unused rail corridor north of Kyle Road should be developed into a trail. The new trail is approximately 2.8 miles in length, and would be connected to the existing Hesse Park facility by way of a bicycle route on Illini Avenue. This trail will provide important alternative transportation, recreation, and fitness opportunities for residents in the city's near-northern subdivisions.

Ogles Creek Trail. The Ogles Creek corridor should be designated as an official Greenway under the Park/Open Space provisions of the city's Comprehensive Plan. The purpose of the designation would be to recognize a set of unique conditions that further differentiate this corridor from those typically associated with the city's Riparian Zones X and Y. (A definition of the proposed greenway zone with approximate limits and permitted uses is provided in the Implementation Strategy section.) The trail would be built within the greenway



corridor and would encompass approximately 6.5 miles. It would extend from Milburn School Road on the south to a point near the Old Lebanon-Troy Road on the northeast. The Ogles Creek Trail will provide alternative transportation, recreation, and fitness opportunities to the northwestern, northern, and northeastern portions of the city where significant residential growth is anticipated to occur.

Engle Creek Trail. A 6.5 mile trail along Engle Creek should be developed from its western terminus at the Hesse Park Trail to Reider Road at the east edge of city's Facility Planning Area (FPA). The entire Engle corridor should be designated as an official Greenway. The trail will provide important alternative transportation, recreation, and fitness opportunities for the residents on the east side of the city, and to students at the Oak Hill, Moye, and Hinchcliffe Schools.

Rock Springs Branch Trail. The Rock Springs Branch offers another unique trail/greenway opportunity for residents in the southeastern portion of the city. Here, a trail should be developed within an officially -designated greenway corridor from Edgewood Drive on the southwest to its terminus at the Engle Creek trail on the northeast. This facility would be approximately 4.5 miles in length, and would provide critical connections to the Rock Springs Park and its trail system. The Rock Springs Branch corridor should be designated as a greenway. The corridor is also close to O'Fallon Township High School and to the Laverna Evans Elementary School, which will provide important alternative transportation opportunities for students.

Silver Creek Trail. Silver Creek provides the fourth trail/greenway opportunity for O'Fallon. It should also be designated as a greenway. This facility will serve residents on the eastern portion of O'Fallon and could also represent a strong partnering opportunity with the city of Lebanon and Scott Air Force Base. Within the corridor, a trail is feasible from the northern FPA limit to the point south of I-64 and east of Air Force base where the creek corridor exits the FPA. The Silver Creek Greenway would result in a trail corridor of more than 9.5 miles. It would be the longest of the four greenways proposed in this plan. Because of its



proximity to the three jurisdictions, it represents an ideal joint development opportunity.

Trail on Proposed Gateway Connector Alignment. IDOT's proposed new Gateway Connector will result in extensive property acquisition to and the establishment of a major new roadway. It is intended to increase lane capacity to handle projected traffic demand in this growing portion of the region. Although this project is important and necessary, it will also have a major environmental impact on O'Fallon. The incorporation of a Class I Bicycle path within the project right-of-way could help to mitigate this impact and would result in the creation of a 7.5-mile long alternative transportation facility within a rapidly-growing development corridor. It would also establish a major new amenity for this portion of the region.

### 3. On-Street Bikeways

An extensive on-street system of bikeways should be developed to provide alternative transportation facilities for all areas of the city, as well as interconnections to activity generators and to the trail system described above. For each street segment, one of the bikeway treatment types identified on the following page (Illustration 16) is recommended.

The typology is based on guidance developed by the Illinois Department of Transportation (IDOT) for certain roads under its jurisdiction and described in its Bureau of Design and Environment Manual (BDM).<sup>1</sup> It is also based on information provided by the Pedestrian and Bicycle Information Center (PBIC).<sup>2</sup> Selected design sections and plan views from IDOT's BDE manual which illustrate the typology, along with other design elements, can be found in Appendix C. Selected speed-volume matrices and charts from the PBIC which

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<sup>1</sup> Illinois Department of Transportation (IDOT). Bureau of Design and Environment Manual, Ch. 17: "Bicycle and Pedestrian Accommodations,"

<sup>2</sup> Pedestrian and Bicycle Information Center, Highway Safety Research Center, and University of North Carolina – Chapel Hill, Bicycle Facility Selection: A Comparison of Approaches, by Michael King. August, 2002



form the basis of the typology have been included in Appendix D.

Considerable portions of the IDOT and PBIC material reflect guidelines found in the Guide for the Development of Bicycle Facilities, published by the American Association of State Highway and Transportation Officials (AASHTO). They are also supported by bikeway signage standards defined in the Manual on Uniform Traffic Control Devices (MUTCD).

All of this source material constitutes a substantial and growing body of data establishing acceptable on-street bikeway design practices.

Illustration 16. On-Street Treatment Typology

Treatment Type	Applicability	Design Treatment <sup>1</sup>
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<sup>1</sup> Consult IDOT BDE Manual, PBIC, AASHTO Guide, and MUTCD for specific design guidance and standards.



Bicycle Facilities Planning Process – Chapter 2: Bicycle Facilities Plan

<p>a. Accommodation – Signed Shared Roadway</p>	<p>For busier roads with physical limitations that do not allow for widening in conformance with an official bicycle facility (such as a signed bike route or bike lane). They are intended for use by experienced bicyclists who are comfortable traveling on roadways.</p>	<p><u>Urban Section:</u> Wide outside lanes – 14’ recommended, not including gutter pan. (A 13’ wide outside lane would provide some level of accommodation when the preferred widths are not available.) 15’ is preferred where extra space is required for maneuvering such as on steep grades or at railroad crossings which are not perpendicular to the direction of travel. Widening can often be accomplished through lane re-striping, and by reducing the width of the inside lane or left turn lane.</p> <p><u>Rural Section:</u> A paved shoulder of any width up to 4’ is better than none at all; however, it cannot be signed as a bicycle facility. A width greater than 4’ is preferred, excluding gutter pans and rumble strips. 5’ is recommended from obstructions such as guard rails, signs, etc. Additional width is also recommended for higher bicycle traffic, motor vehicle speeds above 45 mph, and for higher truck/bus traffic.</p> <p><u>Warning Signage:</u> “Share the Road with Bicycles” signs every 1/4-mile.</p>
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Illustration 16. On-Street Treatment Typology (cont'd.)

Treatment Type	Applicability	Design Treatment <sup>1</sup>
<p>b. Bicycle Lane</p>	<p>For busier roads with higher speeds and traffic volumes, including collectors and arterials with an urban or rural section. (Where roads may not be of sufficient width to enable the installation of bicycle lanes, consider reductions in vehicle speeds and/or traffic volumes to accommodate bicycles as per Type a treatment.)</p> <p>“: Busier road” is defined as either a road with permitted speeds of up to 35 mph and volumes of 10,000 + vehicles per day, or permitted speeds of 40 mph+ and volumes of 1200+ vehicles per day.</p>	<p><u>2-lane Rural Section:</u> Min. 5' + shoulders with 5' striped bicycle lanes (5', 12', 12', 5'). Widen shoulder on busier roads to provide more separation between motor vehicle lane and bike lane.</p> <p><u>4-lane rural section:</u> Min. 8'+ shoulders with 5' striped bicycle lanes (5', 3', 12', 12', 12', 3', 5'). Widen shoulder to provide more separation between motor vehicle lane and bike lane.</p> <p><u>2-Lane Urban Section:</u> Min. 5' striped bike lane, excluding gutter pan. With curb parking, add 5' bike lane between parking and motor vehicle lane. (Min. 13' between curb and motor vehicle lane, including gutter pan.)</p> <p><u>4-lane Urban Section:</u> Min. 5' striped bike lane, excluding gutter pan. With curb parking, add 5' for bike lane between parking and motor vehicle lane. (Min. 13' between curb lane and motor vehicle lane, including gutter pan.)</p>
<p>c. Bicycle Route (Signed Shared Roadway)</p>	<p>Bicycle routes should be so-marked if they are continuous and meet standards identified in the AASHTO publication, “Guide for the Development of Bicycle Facilities,”</p>	<p>14' outside lanes “Bicycle Route” and “Share the Road with Bicycles” Signs</p>

<sup>1</sup> Ibid.



Bicycle Facilities Planning Process – Chapter 2: Bicycle Facilities Plan

	<p>and if they are at least one mile long. Shorter bike routes may be marked if they connect with other bike routes.</p>	
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The full listing of O’Fallon street segments and recommended treatments keyed to the previous typology is provided below (Illustration 17). Also refer to attached map, Illustration 18.

**Illustration 17. On-Street Bikeways**

Street	From	To	Type	Dist. (mi.)
Thouvenot/ Drake Rds	Ill. Rt. 159	Cross Rd.	c.	3.4
Wherry Rd.	Ill. Rt. 158	Reider Rd.	b.	1.5
Ashland Ave.	Old Collinsville	Central Park	a. Ashland does not have continuity. It will require a linear connecting trail through St. Ellen Mine Park, and “Share the Road with Bicycles” signs on either Booster Rd. or Friese Ln., to Hartmann and back to Ashland.	1.6
Cambridge Blvd.	Greenmount Rd.	Third St.	a.	0.6
Third St.	Cambridge Blvd.	Rock Springs Park trailhead	c.	2.0
W 5 <sup>th</sup> St/	Old Collinsville	Reider Rd.	a.	6.9



Bicycle Facilities Planning Process – Chapter 2: Bicycle Facilities Plan

U.S. 50	Rd.			
State St./Old Vincennes Tr./Borcher's Ln	U.S. 50	Rock Springs Greenway	c.	4.4

Illustration 17 (cont'd.). On-Street Bikeways

Street	From	To	Type	Dist. (mi.)
Central Park/ Green Mount Crossing	Hartman Ln.	Greenmount Rd.	b.	1.7
New Road	Carr	Greenmount Rd.	b.	.7
E. Wesley	White Oak	Seven Hills	a.	1.1
White Oak	E Wesley	Mace's Grove	a.	.1
Mace's Grove	White Oak	Engle Creek Greenway Trailhead	a.	.1
Porter Rd	Simmons Rd	Oberneufemann /Schwagel	c.	.4
Ogle Rd	Oberneufemann/ Schwagel	Hinchcliffe School	c.	.2
Hinchecliffe School road	Ogle	Hesse Park Trailhead	c.	.4
Milburn School	Ill. Rt. 159	Simmons	b.	3.3
Milburn School/Fairwood Hills Rd	Simmons	N. Lincoln/ Engle Creek Greenway trailhead	c.	1
West Deer Creek	Fairwood Hills Rd	Smiley St	c.	.7
Bethel Mine/Bethel School Rd.	Ill. Rt. 159	Bowler Rd. (extension of Lincoln)	b.	4.7
Lemen/Lemen Settlement	Bethel School Rd	Rail-Trail adj to Witte	a.	2.0
Witte/County Line	Witte	Bowler Rd	a.	2.4
Haury Rd	Bowler Rd	Greenway	a.	.8
Haury Rd.	Greenway	Weil Rd.		.3
Weil Rd	Haury Rd	Scott-Troy Rd.	c.	.9
Ill. Rt. 159	Milburn School Rd.	Bethel Mine Rd.	b.	1.8



Bicycle Facilities Planning Process – Chapter 2: Bicycle Facilities Plan

Old Collinsville Rd.	Drake/ Thouvenot Ln	Bethel School Rd.	a.	4.8
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**Illustration 17 (cont'd.). On-Street Bikeways**

Street (mi.)	From	To	Type	Dist.
Hartmann Ln.	Thouvenot Ln.	U.S. 50	a.	1.5
N. Greenmount	Southern edge of FPA	State St.	c.	1.6
N. Greenmount	Thouvenot	State St.	a.	1.5
Porter / Vinita Rd	State St.	Oberneufemann	c.	1.3
Oberneufemann	State St.	Porter	a.	0.6
Illini Dr	Hesse Park Trail	Kyle Rd.	c.	1.0
Lincoln Ave	Thouvenot Ln	Bethel School Rd.	c.	4.0
Simmons / Witte	Porter Rd	Kyle	b.	1.1
Simmons/Witte	Kyle	Lemen Settlement	a.	2.8
Clarendon/ Tazwell Dr.	Fairwood Hills Rd.	Kyle Rd	a.	0.6
Vine St	5 <sup>th</sup> Street	E. Wesley	a.	0.8
Smiley St.	U.S. 50	Deer Creek	a.	1.9
Timber Cr.	Dartmouth	U.S. 50	c.	.3
Seven Hills Rd.	U.S. 50	Haury/Weil Rd.	c.	4.6
Reider Rd.	Wherry Rd	Hagemann Rd	b.	3.1
Pierce/ Dartmouth	Greenmount Rd.	Timber Creek Lane	c.	1.9
5 <sup>th</sup> Street	U.S. 50	O'Fallon Comm. Park	a.	0.4
6 <sup>th</sup> Street	Smiley St	O'Fallon Comm.	a.	0.1



Bicycle Facilities Planning Process – Chapter 2: Bicycle Facilities Plan

		Park		
Seibert Rd.	Ill. Rt. 158	S. Old State	a.	0.5
S. Old State	Seibert Rd	Wherry Rd	a.	0.9
Deer Creek Rd.	Lincoln Ave.	Seven Hills Rd.	c.	1.0
Lincoln Farm Rd.	Kyle Rd.	Summerlin Ridge	a.	0.4
Summerlin Ridge Dr	Simmons Rd	Lincoln Ave	a.	0.7
O'Fallon/Troy Rd.	Lincoln Ave	Hagemann Rd.	b.	2.0
Rutherford Ridge	O'Fallon/Troy	Ogles Cr. Green.	a.	0.9

In addition to the bikeway improvements identified above, the city should promote and encourage bicycle accommodations on connecting state and county-maintained roads. It should also promote cooperation with Collinsville, Lebanon, Mascoutah, and Scott Air Force Base to establish connections to bordering bikeways in those communities. Bikeway connections to St. Clair County Transit and Metrobus lines are also very important in terms of further encouraging bicycle usage and supporting transit-oriented development (TOD).

**Purpose and Intended Users.** The On-Street Bikeway System consists primarily of accommodations intended to facilitate travel connections for bicyclists, including movement between city parks, downtown commercial establishments, and other activity centers. The primary intended users of this system are experienced and casual adult cyclists, and teenage riders who could most appropriately use an on-street bikeway system. The arterials and collectors within this system are not intended for child riders who, under the supervision of their parents, might most appropriately use other elements of the system including trails, sidewalks (in accordance with AASHTO bikeway guidance<sup>1</sup>), and low volume residential streets.

<sup>1</sup> Guide for the Development of Bicycle Facilities; American Association of State Highway and Transportation Officials. P. 20.



## C. Implementation Strategy

### 1. Pre-Engineering Opinion of Cost to Develop the O’Fallon Bikeway System

This section provides a preliminary opinion of cost to develop the bicycle facility system identified in the previous section. This is essentially a rough-order-of-magnitude (ROM) estimate that has been developed based on experience with other bikeway projects in the St. Louis Metropolitan region. The level of estimation is considered to be typical for a planning study. At this planning stage, it cannot reflect the more precise estimates that would be developed during the design/engineering phase of work. Moreover, it cannot account for future conditions in the construction market, which would determine actual price outcomes during the bid phase of work.

<u>Plan Element</u>	<u>Length (Mi.)</u>	<u>ROM Estimate</u>
North Extension of Hesse Park Trail	2.8	\$770,000
Ogles Creek Greenway and Trail	6.5	\$1,787,500
Engle Creek Greenway and Trail	6.5	\$1,787,500
Rock Springs Greenway and Trail	4.5	\$1,237,500
Silver Creek Greenway and Trail	9.5	\$2,612,500
Trail on Gateway Connector Alignment	7.5	\$2,062,500
On-Street Bikeway System	<u>73.5</u>	<u>\$6,289,680</u>
Total Bikeway Mileage & ROM Cost Est.	110.8	\$14,484,680

### 2. Funding Sources, Uses, and Project Phasing

The estimated costs to construct O’Fallon’s proposed bikeway system are substantial, yet achievable with an appropriate funding and phasing strategy. The following is a listing of potential funding sources to implement this plan.



TEA-21 Enhancements. The primary funding resource for bikeways has been through the Enhancements provisions of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), administered by the Illinois Department of Transportation (IDOT), and, in this region, the Metro East Transportation Planning Committee and East West Gateway Council of Governments (EWGCOG). If patterned after its predecessor programs, the new Enhancements program could fund up to 70-80% of the costs to build O'Fallon's system.

A substantial amount of funds is expected to be available over the next few years, if the program is re-authorized. Upon reauthorization, IDOT should begin to solicit applications within 4-6 months, through a series of funding rounds, and would continue to do so until all of the allotted funds have been programmed. The program will be highly competitive, and will prioritize carefully planned projects that emphasize bicycling as a mode of transportation.

The City of O'Fallon can maximize opportunities to obtain the greatest share of these funds by committing to a multi-year application effort, closely coordinated with its fiscal capabilities to provide the local match. An important criterion for successful applications will be the degree to which Class II and III (on-street) bicycle facilities are integrated with Class I (separate) bicycle paths, which will be emphasized. Therefore, the City should carefully coordinate these efforts between the Parks Department and the Street Department, so that funding for both trails, and on-street facilities, is sought in any given round.

Surface Transportation Program Funds. The Surface Transportation Program (STP) can also be used by the city to underwrite bicycle facilities. Although it's primary purpose is to build roads for motor vehicles, provisions for bicycles can also be funded. Significantly, some work, such as adding paved shoulders, striping or signage to facilitate bicycle movement, can also facilitate motor vehicle movement. In addition, shoulders have been shown to extend the service life of motor vehicle lanes. To the extent that this is financially feasible, the city should consider STP funds as a supplement to Enhancements funds to develop the on-



street portion of the plan.

Open Space Land Acquisition and Development Program. The Open Space Land Acquisition and Development Program (OSLAD) is another potential source of funding that can be used to underwrite land acquisition and development of green space. OSLAD funds should be sought to develop portions of this plan.

Illinois Bicycle Path. Like the OSLAD program, this program is administered by the Department of Natural Resources and offers financial assistance up to 50% (up to \$200,000) for approved bike path projects.

Metro East Park and Recreation District. The City of O'Fallon has already been successful in tapping this funding resource for local parks. Local trails, especially those that link communities, are good candidates for MEPRD funding.

Local Funds. Looking at this from the perspective of return-on-investment, the city can maximize citizens' investment of tax dollars by utilizing local revenue as a match to obtain Enhancement, OSLAD, and other funds. At the very least, for every three dollars of local investment from the city, the community would receive seven dollars of additional, external, investment to build the bikeway system. Another important measure of return-on-investment relates to the fact that the city will not only gain major infrastructure improvements to its park system, but some road improvements for the benefit of automobiles would also be obtained. The net return to the O'Fallon taxpayer will be a more efficient parks and roads system.

Finally bond issues should also be considered as a supplement to the city's funding strategy, to the extent that this is feasible.

Developer Contributions. Contributions from the developer community, as described in Section 3 below, should also comprise a portion of this funding strategy.



Bicycle Facilities Planning Process – **Chapter 2: Bicycle Facilities Plan**

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All of these resources have been applied to specific facility improvements in the following phasing matrix (Illustration 18).



Bicycle Facilities Planning Process – **Chapter 2: Bicycle Facilities Plan**

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Illustration 18. T.B.D.



### 3. Plan Adoption and Regulatory Actions

The following steps should be taken to implement the O'Fallon Bicycle Facilities Plan:

- a. Local adoption by the O'Fallon Parks Board and the City Council. Adoption of the plan as a guide for local policy development will ensure its implementation.
- b. Regulatory Actions. A number of regulatory actions should be implemented. The city's Parkland Dedication Code will be a key element in the implementation of the trail/greenway portion of O'Fallon's Bikeway System. Greenways are essentially linear parks, and have long been recognized as an important element in the improvement of property values. They are in fact a type of infrastructure, which directly supports the health, and vitality of people and the residential and commercial environment in which they exist.

There is also considerable documented and anecdotal evidence that trails and greenways are good for the real estate development industry in that they positively affect property values. Examples include the following:

- *Positive economic effects of a greenway corridor arise because of an increase in the value of taxable properties adjacent to the greenway. In an urban setting, this is almost beyond argument since the value of land for office buildings and apartment houses or condominiums will be enhanced to some degree by adjacency to any public amenity of this sort.<sup>1</sup>*
- *(Burke Gilman Trail, Seattle, WA.) ... today, agents routinely advertise properties as being on or near the trail. According to the report (by the Seattle Engineering Department), 'property near ... the Burke-Gilman Trail is significantly easier to sell and, according to real estate agents, sells for an average of 6 percent more as a result of its proximity to the trail. Property....<sup>2</sup>*
- *....In suburban areas of Chicago, Tampa, Washington D.C. Seattle, and elsewhere, home-sale advertisements promote the properties' proximity to trails as a selling point.<sup>3</sup>*

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<sup>1</sup> Greenways for America, by Charles Little. 1990. The John Hopkins University Press; p. 185.

<sup>2</sup> Ibid. P. 186.

<sup>3</sup> Trails for the Twenty-First Century, second edition, by Charles Flink, Christine Olka, and Robert Searns. 2001, Island Press; p. 40.



Bicycle Facilities Planning Process – Chapter 2: Bicycle Facilities Plan

- *(Greenways in general) ...increased tax revenues are usually generated by an increase in property values on land near the greenway....*<sup>1</sup>
- *Downtown Minneapolis Central Riverfront is coming back, and it's parkland that's helping to make it happen. The \$40 million we've spent on parkland acquisition and development in the central river area is leveraging nearly ten times that amount in private expenditures for housing, office space, and commercial development.*<sup>2</sup>
- *'I strongly believe that the development of Downtown Park (Bellevue, Washington) was a catalyst for the residential development around it,' said Matthew Terry, director of the Bellevue Department of Community Development. Developers confirmed this view. One property owner said that the close proximity of Downtown Park to his parcel was critical to his decision to buy the land. When Kevin Lynch bought his parcel in 1980, he thought he was lucky to be close to a major regional shopping mall. Then when Downtown Park was developed next to his site, 'that was like winning a lotto ticket,' said Lynch. 'It's a blue-ribbon location to be next to a regional mall and a park.'*<sup>3</sup>
- *(Pinellas Trail/Greenway, Pinellas County, Florida) ....In Oldona, adjacent to the trail, an upscale townhome community was developed that uses the word trail in its name.... In addition, although firm figures on the trail's impact on nearby property values are not yet available, anecdotal evidence points to higher prices, which would yield higher tax receipts for the county. "Both houses and commercial property along the trail are certainly more marketable," said Scott Daniels, president of Pinellas Trails, Inc. 'Real estate ads mention proximity to the trail as one of the selling points.'*<sup>4</sup>

It is clear that, if homeowners gain, then so do the industries that develop and market homes. Therefore, it is appropriate for the development community to participate in the creation of this infrastructure in O'Fallon, as it does in other communities.

Street specifications in the city's Subdivision Code should also be modified to conform to the typology in Illustration 16 above.

<sup>1</sup> Greenways: A Guide to Planning, Design, and Development, Loring LaB. Schwarz, editor. 1993, Island Press, p. 69.

<sup>2</sup> Urban Parks and Open Space, by Alexander Garvin and Gayle Berens. 1997, Urban Land Institute, p.59. Quote by David Fisher, Supt., Minneapolis Park Board.

<sup>3</sup> Ibid. P 78.

<sup>4</sup> Ibid. P. 176.



## 4. Encouragement, Education and Enforcement

Bicycling has been one of the most popular forms of recreation in the United States for some time. Well over 35 million American adults ride regularly, and this number has been steadily increasing since 1983.<sup>1</sup> Many of these riders use public streets for recreational, and some utilitarian/commuting activity.

A variety of programs related to the encouragement, education and enforcement of proper bicycling behavior has evolved to facilitate usage of bicycles by adults and children. This section will describe and recommend incentives to increase the safety and enjoyment of bicycle usage in O'Fallon. The recommendations are principally derived from several sources including Michael Replogle<sup>2</sup> and the Bicycle Federation of America<sup>3</sup> It provides a framework within which bicycles can be more easily considered as a mode option when transportation choices are made, and provides ways in which their use can be regulated for public safety and protection.

For each of the following areas, recommendations for O'Fallon are listed first, followed by suggestions for other entities. (Suggested lead and other involved agencies are identified in parentheses.)

Encouragement Activities. Encouragement refers to a variety of strategies to invite the use of bicycles. The following specific recommendations are made for O'Fallon:

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<sup>1</sup> Bicycling Reference Book; 1993-1994 Edition. Bicycle Institute of America. Page 6.

<sup>2</sup> Bicycles and Public Transportation, by Michael A. Replogle. 1988; the Bicycle Federation. Page 27.

<sup>3</sup> Non-Motorized Travel Facilities Integration Project: Summary Recommendations. Bicycle Federation of America; June 30, 1991.



- a. Technical Advisory Committee. Create a Bicycle Technical Advisory Committee to provide ongoing guidance to the Parks and Street departments concerning implementation, safety, education, and promotion, and encourage involvement of other public, institutional and private parties. Wide representation from government and the private sector should be included
- b. Brochure. Develop and distribute a brochure, which includes a map of the bicycle system and park system.
- c. Special Events. Sponsor special bicycle events designed to use facilities being developed.
- d. Bike Lockers, Racks, and Shower Facilities. Encourage larger employers to provide bike lockers or racks, and to install showers to promote commuting.

Education Activities. This category addresses the need to learn the how-to's of bicycling in order to provide cyclists with skills to use trails and streets. Many bicycle education programs are school based. The National Highway Traffic Safety Administration (NHTSA) as well as the State of Illinois have developed materials for various school-age groups. Pre-school children are not introduced to the traffic environment unless accompanied by an adult. Traffic safety programs begin at the kindergarten through lower grade school levels; they emphasize simple stop and look techniques at mid block and at corners. Programs for older grade school children introduce them to more complex traffic challenges.

The Bicycle Federation and BikeCentennial jointly developed a curriculum titled, Basics of Bicycling that is geared to the fourth grade. Education programs for older students are less prevalent, probably because busing programs prevent widespread use of bicycles as a primary mode of travel to schools, and because of the logistics involved in arranging after school training programs for these students. Many programs place emphasis on the common types of accidents associated with bicyclists: Rideouts from alleys, driveways and other midblock



locations, rideout at controlled intersections, motorist driveout and turn/merge at intersections, motorist overtaking and bicyclist unexpected turns/swerves.

Another source of education material is advocacy groups, such as the League of American Bicyclists, which provides information on availability of new training programs, legislative trends, etc.<sup>1</sup>

- a. Incorporate basic education/safety language into brochures and maps.
- b. Incorporate bicycle education/safety messages into other literature produced by the park department.
- c. Stock and distribute copies of bicyclist safety material.

Enforcement Activities. The following enforcement recommendations are related to safety:

- a. Establish basic rules and regulations for trails under O'Fallon's jurisdiction.
- b. Obtain and distribute copies of appropriate bicycle safety information produced by one of the referenced sources.
- c. Stock supplies of bicycle safety material, maps, and rules of the road at kiosks or other stations within parks.
- d. Establish police, park ranger, or volunteer patrol presence on trails. Issue courtesy slips to trail users who are not aware of rules.
- e. Establish police presence on streets. Communicate rights and responsibilities to motorists and bicyclists. Issue courtesy slips to road bicyclists who are not aware of the rules of the road. Issue traffic citations to bicyclists as appropriate

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<sup>1</sup> National Bicycling and Walking Study - Case Study 12; pp 7-11. Federal Highway Administration.



- d. Coordinate enforcement with education programs. Grade schools are an excellent starting point for these programs. Include elements on bicycle registration and lighting.
- e. Change the view of bicycle related law enforcement as a "non-essential" program.
- f. Consider a bicycle registration law.
- g. Establish a police bicycle patrol. Bike patrols enhance neighborhood police visibility and are also a useful adjunct to the non-bicycle related responsibilities.

#### 4. Monitoring and Evaluation

The implementation of the O'Fallon Bicycle Facilities Plan should be monitored by representatives of the Department of Parks & Recreation and the Department of Public Works, working closely with other departments as necessary, and with the Bicycle Task Force.

The utilization of local and external resources as well as the timetable for completion of development should be central elements of this monitoring process. Monitoring of facilities usage should also occur, preferably on an annual basis. Regular progress reports to the Parks Board and to the City Council should be made, including recommendations as to whether program resources, scoping, or its timetable need to be modified.

### Illustration 18. O'Fallon, Illinois Bikeway Phasing and Potential Resources

The following represents an initial strategy to phase all planned improvements consistent with available resources. Work on each bikeway facility is phased to enable implementation of the entire plan over a multi-year period. Estimates incorporate a 5% annual inflation adjustment.

Facility Phasing	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1. North Extension, Hesse Pk Tr.	\$770,000									
2. Ogles Creek Greenway & Tr.		\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615
3. Engle Creek Greenway & Tr.		\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615	\$198,615
4. Rock Spr. Greenway & Tr.		\$137,500	\$137,500	\$137,500	\$137,500	\$137,500	\$137,500	\$137,500	\$137,500	\$137,500
5. Silver Cr. Gr. & Tr. ( See note 1)										
6. Tr. on Gateway Connector			\$257,815	\$257,815	\$257,815	\$257,815	\$257,815	\$257,815	\$257,815	\$257,815
7. On-Street Bikeway System	\$628,970	\$628,970	\$628,970	\$628,970	\$628,970	\$628,970	\$628,970	\$628,970	\$628,970	\$628,970
Total All Improvements	\$1,398,970	\$1,163,700	\$1,421,515	\$1,421,515	\$1,421,515	\$1,421,515	\$1,421,515	\$1,421,515	\$1,421,515	\$1,421,515
Infl. Adj. @ 5%/Yr.	100%	105%	110%	115%	120%	125%	130%	135%	140%	145%
<b>Infl. Adjusted Total</b>	<b>\$1,398,970</b>	<b>\$1,221,885</b>	<b>\$1,563,667</b>	<b>\$1,634,742</b>	<b>\$1,705,818</b>	<b>\$1,776,894</b>	<b>\$1,847,970</b>	<b>\$1,919,045</b>	<b>\$1,990,121</b>	<b>\$2,061,197</b>

### Potential Resources

Enhancement Prog. (See note 2,3)	\$400,000		\$550,000		\$450,000		\$450,000		\$450,000	
STP Funds		\$415,000	\$200,000	\$450,000	\$325,000	\$555,000	\$290,000	\$625,000	\$260,000	\$490,000
OSLAD (See note 1)		\$50,000		\$100,000		\$50,000		\$50,000		\$50,000
Rec. Trails Program (See Note 2)			\$50,000		\$50,000		\$50,000		\$50,000	
MEPRD Grants	\$770,000		\$300,000		\$200,000		\$200,000		\$200,000	
Local Funds	\$80,000	\$300,000		\$365,000	\$165,000	\$355,000	\$140,000	\$230,000	\$110,000	\$400,000
Developer Contributions	\$150,000	\$400,000	\$400,000	\$600,000	\$400,000	\$700,000	\$600,000	\$900,000	\$800,000	\$1,000,000
Donations		\$25,000	\$30,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
In-kind Contributions		\$35,000	\$40,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$85,000	\$90,000
<b>Total Resources</b>	<b>\$1,400,000</b>	<b>\$1,225,000</b>	<b>\$1,570,000</b>	<b>\$1,635,000</b>	<b>\$1,710,000</b>	<b>\$1,780,000</b>	<b>\$1,850,000</b>	<b>\$1,925,000</b>	<b>\$1,995,000</b>	<b>\$2,070,000</b>

### NOTES:

1. This project should proceed in close coordination/cooperation with other partners such as the City of Mascoutah, Scott AFT, and MEPRD
2. Denotes a competitive grant or funding program. Amounts potentially available from these sources are estimates.
3. Amounts shown reflect proceeds from an application for \$320,850 that would be submitted in 2006, but distributed over a three-year period for corridor acquisition and trail development. Application should be made in 2006 to allow time for two resubmittals in the event that the program is not funded during the first attempt.